

directly synthesized by incorporation of a citrulline by replacing an arginine.

Please amend the paragraph on page 14, lines 30-33, as follows:

B10
For the peptide E-12-D (SEQ ID NO:6), only the arginine residue corresponding to the 8th amino acid of the sequence was replaced by a citrulline during peptide synthesis.

Please amend the paragraph on page 15, lines 4-25, as follows:

B11
The wells of NUNC MAXISORP microtiter plates were respectively coated with the aid of the noncitrullinated and citrullinated peptides E-12-D (SEQ ID NO:6) and E-12-H (SEQ ID NO:5), diluted to a concentration of 5 µg/ml in a PBS buffer (pH: 7.4) and incubated overnight at 4°C (final volume: 100 µg/well). The wells were saturated for 30 minutes at 37°C in PBS-Tween 20, 0.05%, 2.5% gelatin, 200 µl/well. The negative control serum (normal serum) was diluted 1/120. The antifilaggrin antibodies were diluted in PBS-Tween 20, 0.05% - 0.5% gelatin (PBS TG) such that the final anti-filaggrin autoantibody concentrations are those indicated in the accompanying Table I. The negative control serum, the RA sera and the anti-filaggrin antibodies were added (final volume: 100 µl/well) and incubated for 1 hour at 37°C and overnight at 4°C. Peroxidase-labeled goat antibodies anti-gamma heavy chains of the human immunoglobulins (marketed by the company SOUTHERN BIOTECHNOLOGIES) were added to each well (dilution in PBSTG: 1/2000, final volume: 100 µl/well) and incubated for 1 hour at 37°C. The revealing was carried out by addition of orthophenylenediamine (2 mg/ml, for 10 minutes).

In The Claims:

3. (Amended) The artificial antigen as claimed in claim 2, which consists of a peptide comprising all or part of at least one sequence derived from SEQ ID NO:3, by replacing at least one arginine residue with a citrulline residue.